

W5YI

America's Oldest Ham Radio Newsletter REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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The 2001 Amateur Radio Year in Review!

Every year about this time we pause to reflect on what has happened to Amateur Radio during the past 12 months. Being tied to technology trends, ham radio is naturally always changing. And 2001 was no exception! Here are what we feel were the major stories of the past year.

JANUARY 2001

- The year 2001 was the first full year under the FCC's new Amateur Radio restructuring plan which went into effect in the Spring of 2000.

This was a major change with only three Amateur Radio license classes being available after April 15, 2000. All six license classes could be renewed or modified, but applicants could only be examined for the Technician, General and Amateur Extra Class tickets. The telegraphy requirement was reduced to 5 words-per-minute for the General and Amateur Extra Class.

The Technician Class was impacted the most.

- (1.) Amateurs holding Technician tickets before March 21, 1987 were allowed to immediately upgrade to the General Class without further testing.
- (2.) No new Technician Plus Class licenses would be issued and;
- (3.) Tech Plus licensees would have their licenses renewed as "Technician," but would still retain their HF privileges on 10, 15, 40 and 80 meter CW and 10 meter phone between 28.3 and 28.5 MHz.
- (4.) Another wrinkle was that previous Novice oper-

ators and Technicians licensed before February 14, 1991 with long expired licenses would still retain Morse code (Element 1) 5 wpm examination credit.

These license class structural changes caused significant increases in the number of Technician (up 15%), General and Amateur Extra Class licensees (each up 25%) and corresponding decreases in the number of Novice (down 25%), Tech Plus (down 35%) and Advanced Class (down 15%) operators.

The following table shows the trends in the license classes over the past three years.

Year End Census of Amateur Radio Operators			
License	1999	2000	2001
Extra Class	75,392	93,751	96,310
Advanced	103,471	88,679	86,555
General	110,386	134,018	138,239
Tech Plus	133,359	100,412	85,997
Technician	202,409	219,223	232,947
Novice	52,375	45,104	40,323
Total	677,392	681,187	680,371

On page 4 we show a chart of the current number of radioamateurs by state and license class with a comparison to last year. Note that we have combined the Technician and Tech Plus license classes since there are thousands of Technician Class amateurs who have passed the 5 wpm code or have renewed their Tech Plus license and received a Technician license.

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- Public Law 106-521 now allows local and state governments to crack down on CB operators that illegally interfere with consumer electronics. Previously enforcement action could only be handled by the FCC. The new law only applies to citizen's band equipment operating between 24 and 35 MHz and not to licensed radio services such as amateur radio.
- The FCC denied an ARRL Petition that would have extended limited preemption to CC&R's. "Covenants, Conditions and Restrictions" are the fine print in homeowner deeds. The League said that since the Commission exempted over-the-air broadcast satellite dishes, they also had the authority to preempt CC&R's that restrict amateur radio antennas in residential areas. The FCC disagreed saying satellite dishes were small whereas amateur station antennas greatly vary in size.
- The FCC's new Low Power Radio Service was negatively impacted when the NAB and National Public Radio successfully lobbied Congress long and hard against the new broadcast service. LPFM was originally requested by two ham operators, Nicholas Leggett N3NL and Roger Skinner W4FM. The additional sanctions ordered by Congress effectively reduced the number of LPFM stations by about 80 percent. By mid-year, thousands of applications for LPFM stations are received by the FCC for what is left of the service ...even one from a ham club in Mississippi.
- Joining a growing number of countries, Canada proposes to reduce their Morse code speed in the Amateur Service to 5 words-per minute. On May 19th, the new 5 wpm top speed takes effect.
- FCC appoints three Club Call Sign Administrators (CSCSA). They are the ARRL, W4VEC and W5YI-VEC. The FCC will now only accept club, military recreation and RACES applications from these CSCSAs.
- Problems develop with the Phase -3D ham satellite (now called Oscar-40) and it is apparent that the hamsat will not fulfill its objective. The damage to the satellite does not appear to be launch connected.
- On January 19-20, 2001, the ARRL Board votes not to support future mandatory Morse code testing in the Amateur Service and endorses its total elimination. The Board also raised the ARRL dues by \$5 to \$39. In October, the IARU also adopted a resolution stating that required Morse proficiency "...is no longer relevant to the healthy future of Amateur Radio."
- A major earthquake hits India on January 26th and radioamateurs all over the world rush to assist.
- A Republican-led FCC takes over on January 20th. Commissioner Mike Powell, son of Secretary of State Colin Powell is the new FCC Chairman. A new deregulated "business-oriented" telecom approach is expected.

Powell also gets a new crew as all four incumbents (Furchgott-Roth, Kennard, Ness and Tristani) all leave the Commission.

FEBRUARY 2001

- Richard Burton Ex-WA6JAC is again sentenced to jail for unlicensed Amateur Radio operation. He begins serving his 3-months imprisonment on February 26.
- Overnight talk show host, Art Bell W6OBB is coaxed out of retirement and resumes his "Coast To Coast AM" radio show on February 5th. The show airs on 430 radio stations from 1 a.m. to 6 a.m. Eastern time.
- The ham station on the International Space station gets a new call sign: R0ISS. It joins two others: NA1SS and DL0SS. Many ARISS (Amateur Radio on the International Space Station) school student contacts are made throughout the year by the two astronaut crews that make up Expedition Two and Three.
- The FCC, NTIA and Dept. of State begin their preparation for WRC-2003. Advisory committees and Informal Working Groups are formed. On the WRC-2003 agenda are several items which will impact the Amateur Service. Among them are a possible revision of the basic guidelines governing the service (including elimination of the Morse code proficiency requirement) and a possible relocation and or reduction in the 40 meter ham band. The conference will take place between June 9 and July 4, 2003 in Caracas, Venezuela.
- A major scandal breaks out within the FBI as one of its agents, Robert Philip Hanssen K9QVL of Vienna, Virginia is arrested on February 18th and charged with spying for the Soviet Union. He had been an FBI special agent for 25 years. Damage done to the U.S. is termed as "...exceptionally grave." A plea bargain saves him from the death sentence.

MARCH 2001

- The United Kingdom shocks the ham radio world with a proposal to restructure its Amateur Service. They plan to introduce a new 10-watt "Foundation" license which will permit HF operation without learning the Morse code. The new license will be available before the telegraphy proficiency requirement is dropped which is widely expected at WRC-2003.
- FCC moves to revoke the ham and GMRS license of Doug Brewer KC4HAZ of Tampa, Florida for repeatedly operating a "pirate" broadcast station on 102.1 FM.
- On March 6, the European *Conference of Postal and Telecommunications Administrations* adopted a 5 words-per-minute top Morse speed standard for the Amateur Service. CEPT is a federation of 43 countries which adopt common standards throughout Europe.

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APRIL 2001

- On April 6th, the FCC disposed of several *Petitions for Reconsideration* of their restructuring of the U.S. Amateur Service. Some petitioners wanted a different Amateur license lineup, a way to identify the existence of Tech Plus code proficiency in the FCC database, reinstatement of high Morse code exam speeds, telegraphy exam credit for holders of higher class licenses (rules only allow five wpm exam credit for *expired* Novice and Technician license holders), more test questions in written exams, reduction in size of the CW-only bands, exam credit as a result of Incentive Licensing, new sequential call sign systems, etc. All were denied and dismissed by the FCC.

- Baptist missionary Veronica "Roni" Bowers KD4CKM and infant daughter are accidentally killed April 20th when their small plane is mistakenly shot down by a Peruvian anti-drug jet fighter.

MAY 2001

- The 50th anniversary of the Dayton Hamvention takes place May 18 to 20 with about 28,000 attending. George Jacobs W3ASK is named Dayton Radioamateur of the Year.
- The first citizen space tourist to the International Space Station "Alpha" is a ham operator. Although opposed by NASA, California investment tycoon, Dennis A. Tito KG6FZX rode on a Russian Soyuz spaceship to the Space station. Tito reportedly paid \$20 million to the cash-strapped Russians for the trip. He uses ham radio to call his son.
- Both amateur and commercial entities are going after the 13-cm band. The 2300 to 2305 MHz band is not primarily allocated to any service. The Amateur Service gets to use it on a secondary basis. The ARRL again requests that the segment be allocated to the Amateur Service on a primary basis and that no commercial operations be introduced. Commercial interests want the spectrum allocated to various uses including a "Satellite Enabled Notification System" (SENS) or a new "Personal Location and Monitoring System" (PLMS).

JUNE 2001

- Preparations for WRC-2003 shift into high gear as the various Advisory, Study Groups and Working Parties are all busily trying to agree on future telecom standards. ARRL wants WRC-2003 to mandate minimum knowledge of radio regulations, methods of communications, radio system theory, radio emission safety, electromagnetic compatibility and avoidance and resolution of RF interference. These required operator qualification topics would only be referred to in the new Amateur Service S25 international guidelines and would lie outside of the international Radio Rules ...a so called "incorporation by reference" strategy.

JULY 2001

- Mid-year statistics show that more radioamateurs are upgrading to higher class licenses. But there is little increase in the total number which has remained stagnant for several years.
- It was voted at the July ARRL Board meeting that the League would petition the FCC to provide a domestic frequency allocation on a secondary basis in the 5.250 to 5.400 MHz band. The petition was filed in August and assigned RM-10209. The ARRL noted that Europe is also considering an Amateur Service 5 MHz allocation.

SEPTEMBER 2001

- The FCC reduced the regulatory fee on Vanity call signs from \$14.00 to \$12.00. Several thousand Amateur Vanity station call signs were issued during the year.
- On September 13th, the FCC adopted rule changes that permit a new generation of radio equipment called "software-defined radios." SDRs can implement many radio characteristics that previously were defined by hardware such as frequency, bandwidth and modulation methods.
- On September 21st, the United Kingdom announced the implementation of their new "Foundation" Amateur Radio license. A big surprise was that the UK will allow beginners to use dot-dash "crib" sheets to determine Morse code characters. This is to get around the ITU requirement that radioamateurs be code proficient when operating on HF spectrum.

OCTOBER 2001

- The FCC abruptly stopped issuing Vanity station call signs to radio amateurs on October 11th due to the Anthrax scare. Vanity applications can be filed both via a paper document or online. Most are filed online. In November, the FCC began transferring all received letter mail to off site sterilization centers for sanitization and return. So that online filed Vanity call sign applications will not have an unfair advantage at getting a specific call sign, the FCC is temporarily holding up all Vanity call signs, including those filed electronically.

DECEMBER 2001

- Beginning Dec. 3rd, the FCC began implementing another new applicant/licensee identification number. The Federal Registration Number (FRN) must be included with any application filing requiring a taxpayer identification number (TIN). For Amateurs, the TIN is the applicant's Social Security Number. Amateurs can still provide their SSN, and the FCC's data processing system will automatically generate an FRN. Amateurs can determine their FRN from online databases (such as maintained by QRZ and the ARRL) or by doing a license search on the FCC's Universal Licensing System at: <www.fcc.gov/uls>.

State	2000	2001	2000	2001	General Class	Advanced Class	Extra Class	2000	2001	Novice	Grand Total
AK	424	445	396	382	620	643	1576	1598	177	154	3193
AL	1545	1556	1316	1285	2001	2072	5257	5210	413	382	10532
AR	991	1017	2230	2111	1198	1274	3040	3641	310	285	7029
AZ	2131	2230	1556	1316	2001	2072	5257	5210	413	382	10505
CA	10996	11183	1647	11752	11417	1647	16938	55496	54836	7964	6552
CO	1787	1859	1329	1147	1116	1151	1622	2317	2418	3223	5756
CT	66	70	78	74	105	102	132	132	30	28	406
DE	231	238	182	178	178	174	105	105	102	132	1373
DC	1326	1329	1147	1116	1116	1151	1622	2317	2418	3223	5756
GA	2094	2148	6322	6233	9519	9812	15304	15177	3156	2797	39860
FL	5559	5684	2067	2020	2893	2987	6759	6819	712	645	14525
HI	479	485	389	382	580	580	1629	1629	1677	251	14619
IA	945	965	866	843	1581	1591	3191	3191	3016	3372	563
IL	3297	3383	3065	4793	5002	5002	9905	9817	1629	147	4358
ID	547	575	460	440	1085	1462	1501	2541	2486	453	4424
KS	945	965	866	843	1581	1591	3191	3191	3016	3372	563
LA	1185	1229	975	956	1610	1610	3366	7035	7082	944	14874
MA	1878	1920	1903	1966	1008	1008	1688	4478	4458	548	8854
ME	660	677	1666	1666	1017	2271	2329	4606	4545	747	11168
MN	3007	3109	1655	1493	1041	1041	1898	1891	1197	284	254
MI	1618	1655	2708	2634	4462	4462	4577	9699	9735	1126	21073
MD	2406	2451	1016	1026	1610	1610	1688	4478	4458	548	6788
MA	1004	1016	956	956	1581	1591	3191	3191	3016	3372	563
MD	1878	1920	2003	1966	1008	1008	1688	4478	4458	548	8854
ME	660	677	1666	1666	1017	2271	2329	4606	4545	747	11168
MN	3007	3109	1655	1493	1041	1041	1898	1891	1197	284	254
MO	1837	1906	1493	1493	1041	1041	1898	1891	1197	284	254
MS	669	684	1906	1709	1663	1663	2696	4574	4574	5766	659
MT	436	446	657	657	1663	1663	2370	4574	4574	5766	711
NC	2655	2753	446	370	358	358	912	953	2225	215	204
NE	547	551	213	216	216	216	357	369	726	731	77
NH	853	874	2504	2504	594	594	565	555	972	1115	18487
NJ	783	874	2338	2338	583	583	1013	1049	2175	295	274
NM	633	783	2504	2338	583	583	1002	1020	2231	2262	197
NY	4493	4541	4234	4118	6659	6659	6803	13935	13751	14292	1938
OH	4152	4276	4234	4118	6659	6659	6803	13935	13751	14292	1938
OK	1240	1281	1136	1136	1103	1103	1605	4751	4751	4799	455
OR	1700	1770	1696	1696	1103	1103	1605	4751	4751	4799	455
PA	3837	3927	3424	3354	593	593	1603	2898	2993	6099	1670
PR	352	366	496	487	825	825	840	2804	2811	1939	1670
RI	387	387	271	271	266	266	519	960	934	201	182
SC	1028	1074	1074	1074	876	876	1531	1575	1575	3034	1034
SD	248	257	257	257	240	240	372	372	372	595	1577
TN	2039	2095	1869	1869	1822	1822	5819	8018	8283	6684	13913
TX	6274	6518	1869	1869	1822	1822	5819	8018	8283	6684	13966
UT	752	752	789	789	991	991	964	971	971	113	1577
VA	2724	2826	2394	2333	3232	3232	3372	3455	3455	7453	1577
WA	3118	3217	2959	2892	4706	4706	434	451	451	11215	10622
WI	1535	1579	1434	1408	4706	4706	4895	11928	11928	12135	10622
WV	772	796	599	588	1074	1074	1095	1090	107	99	2235
WY	229	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Total	93751	96310	88679	86555	134018	1328239	319655	318944	45104	40323	681187
Other	240	254	126	118	202	202	207	1008	1006	72	63
Other	229	242	194	197	304	304	321	789	788	81	73
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202	207	1008	1006	72	63
Other	772	796	1434	1408	4706	4706	4895	11928	11928	12135	10622
Other	229	242	126	118	202	202</					

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EMERGING TELECOM

Broadband use nearly doubles! According to Nielsen/Net Ratings, one out of every five U.S. Web surfers accessed the Internet with a broadband connection during Nov. 2001. That accounts for almost 20% of the 106 million people who logged onto the Net in the U.S. It is also 90% greater than the number of high-speed users online in Nov. 2000.

More than 21 million people used broadband Internet services, such as cable modem and DSL (digital subscriber line), from home in November, according to the report. That means one in five people online at home have a broadband connection.

"Broadband surfers tend to log on more often, stay online longer and are more likely to shop online than dial up surfers," NetRatings said. The firm's monthly report on Internet usage found the average user logged on 33 times during the month and spent 18 hours 14 minutes 45 seconds online.

Broadband prices in the US have increased by about 10 percent since the start of 2001. According to a study from ARS, the average cost of a DSL connection has risen to \$51.68 from \$47.18 in January, while the cost of a cable modem connection has risen from an average of \$40.07 to \$44.17.

Another report said Direct Broadcast Satellite (DBS) television subscribers will reach about 18 million by year end. DirecTV will have 11 million subscribers. EchoStar: 7 million. Total cable TV subscribers: about 64 million.

GADGETS & GIZMOS

Radio Shack stores are carrying a neat new gadget that gets rid of those annoying automatically dialed telemarketing calls. It connects to your regular phone and covers all phones connected to the same line.

When a telemarketer calls, the Tele-Zapper recognizes the unique characteristics of a dialer computer and sends a "disconnected" signal. The auto-dialer then records your number as disconnected and takes your name off the telemarketers' calling lists.

TeleZapper won't interfere with your

computer, fax or answering machine. \$49.99 (Model: 43-2205). See how it works: <www.telezapper.com>.

INTERNET & WORLD WIDE WEB

Look for a big increase in online billing. The anthrax scare and postal delays have convinced many utilities and businesses to head to the Web. Services -- such as <www.paybutton.com> -- are springing up that make it easy for any business -- large or small -- to bill over the Internet. Cost is as little as 1% of the sale transaction if you already accept credit cards ... 15% if you don't..

There is a big trend toward charging Web surfers for Internet content. So far it is not catching on. Example: Most of the free greeting cards from <AmericanGreetings.com> will now only be available by paying an \$11.95 annual fee. A "special selection" of everyday cards will continue available at no charge, but they have a commercial flavor and are delivered with several advertisements.

And the first digital-music play-for-pay subscription service offering major recording artists has been launched. Backed by AOL Time Warner and Real Networks, Seattle-based MusicNet provides subscribers 100 music downloads a month and streaming access to another 100 tunes. Subscribers will be able to listen to their downloads for 30 days before they "expire."

The catalog of 75,000 songs from independents and three of the five major labels includes selections from Warner Music Group, BMG Entertainment and EMI Recorded Music. The service will offer a searchable database.

MusicNet will not, however, allow for the burning of downloads to CDs. The monthly fee for the RealOneMusic service is \$9.95. It is accessed through RealNetwork's free RealOnePlayer.

Pressplay is a rival digital-music subscription service backed by Universal Music and Sony that has yet to launch. Unlike MusicNet, they say they will allow consumers to copy some of the music onto CDs. EMI Recorded Music is licensing music to both services. Pressplay subscribers will be able to download about 100 tracks each month.

The Pressplay music service will be offered through Yahoo, Microsoft's MSN and Universal's MP.com. Pressplay is at: <www.pressplay.com>.

Abattle is underway for AT&T Broadband, the number one U.S. cable and cable modem operation. Comcast, Cox Cable and AOL Time Warner are all bidding for it. It could bring \$50 billion.

Microsoft (which has \$36 billion in cash) said it would financially back either Comcast or Cox to prevent AOL from controlling cable and Web access. AT&T Broadband's purchase by or merger with AOL would face strong regulatory hurdles since AOL Time Warner is the No. 2 U.S. cable company. A marriage between the two would smack of "monopoly."

Another option is for AT&T to spin off its broadband operation into a separate company. AT&T was recently forced to move some 850,000 cable modem customers to its own network when network supplier Excite@Home Corp. filed for bankruptcy on Oct. 1st.

There was little the FCC could do to help the millions of cable modem customers who were inconvenienced or unceremoniously kicked off the Web. The FCC regulates the traditional wired telecom industry (and with it, high speed DSL since the telcos provide it) but not cable or the internet which are deregulated industries.

A \$307 million offer by AT&T to buy the Excite high-speed network was turned down when Comcast and Cox each agreed to pay Excite \$160 million for three months of network service ... time they needed to get their own networks going.

Excite said it will permanently discontinue its high-speed service at the end of February. Interestingly, Excite had been leasing their network from AT&T. The Excite.com portal, bought for \$10 million by InfoSpace Inc., will continue operation.

Excite@Home shares -- now virtually worthless -- sold for nearly \$100 less than two years ago!

It appears that the online advertising market is now heading in the right direction. Analysts and media executives are increasingly optimistic of a recovery by mid-2002. Among those with better than expected advertising sales is Yahoo. The biggest online advertising spender? You guessed it. Microsoft ... followed by AOL Time Warner.

Advertisers have resorted controlling visitor's online behavior.

Advertisers are resorting to the same kind of annoying "technical trickery" previously used by porn and gambling sites to make sure you see their ad!

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Almost one out of three of the largest Web sites in the United States are using "pop-up," "pop-under" and "mouse over" technologies to make it difficult for visitors to avoid online advertising.

A "mouse over" is a large pop-up ad that appears when you inadvertently pass your mouse over an ad without clicking. Opening a new advertising window when a visitor tries to leave is also increasing.

And many sites are using a tactic called "mouse trapping," which keeps a user on a web page by disconnecting the lifeline of the Web user, the back button ...or worse, by disabling their ability to close a page or "high jacking" them to another page with hidden code.

Almost three-quarters of the U.S. is online. So says UCLA in their "Internet Report 2001." 72.3 percent of Americans use the Internet, up from 66.9 percent a year ago.

Users spend an average of 9.8 hours online per week, up from 9.4 hours per week in 2000. Broadband users spend an average of 3.2 hours more online than dial-up users do.

The main reasons people go online are to find information quickly, for work reasons, and to access e-mail. The five most popular online activities are e-mail and instant messaging, browsing, buying online, finding entertainment information, and reading news. Almost 49 percent of Internet user- bought something online this year.

The number of different people visiting shopping Web sites during Thanksgiving week was reported by Jupiter Media Metrix at 50.2 million. That was 43% more than during the same week last year.

Jupiter Media Metrix also forecasts that one third of all new car sales will be "Internet-generated" within five years. "Internet- generated" sales include consumers who find a dealership with the automobile they want online and make the purchase offline, as well as web-based referrals to dealers.

The Jupiter survey of 2,194 individuals found 42 percent of visitors to car-related Web sites were most interested in detailed product information. The second-most popular response was side-by-side comparisons (cited by 23 percent), followed by ratings and reviews from other consumers (9 percent).

Over two-thirds of Asian-Americans use the Internet every day,

more than other U.S. ethnic group, a new study has shown. A survey of 13,000 Internet users found that Asian-Americans are far more likely to have used the Internet and are more likely to use it on a daily basis than whites, blacks or Hispanics.

Three-quarters of adult Asian-Americans have used the Internet, the study found, compared with 58 percent of adult whites, 50 percent of adult Hispanics, and 43 percent of African-American adults.

The figures for daily use were almost identical, with 70 percent of Asian-Americans online daily, compared with 58 percent of whites, 48 percent of Hispanics and 39 percent of blacks.

WASHINGTON WHISPERS

Anti-virus customers are concerned that security product companies may be rigging their software to selectively overlook snooping software. In our last issue we reported on the FBI surveillance software code-named "Magic Lantern" which allows investigators to eavesdrop on all keystrokes made from targeted home or business computers.

"Magic Lantern" is installed unknowingly by the targeted person in much the same way that viruses and "worms" are planted on computers. That is, users are tricked into opening a file that secretly installs an executable program. Sometimes just viewing a message is enough to install a file. The U.S. (Anti-Terrorist) Patriot Act passed in October makes it easier for the government to deploy "Magic Lantern."

In early December, the Associated Press reported that anti-virus companies (they specifically mentioned Network Associates' "McAfee") were working with the FBI so that their anti-virus software would not inadvertently tip off a targeted terrorist, criminal or foreign spy that their PC was the recipient of the government's "Magic Lantern" snooping software file.

Symantec's "Norton" anti-virus products supposedly was also to conveniently "skip" the reporting of the existence of the FBI's "Magic Lantern" back door sniffer.

Security experts wondered if parties other than the FBI would now develop a program similar to the "Magic Lantern" back door which could remain undetected.

Look for hacker or off shore produced software to become available which can detect the existence of secretly-installed back doors by simply inspecting the code.

Be sure to listen to "The Spy in Your

Computer" which is posted to this website: <www.factsquad.org/radio>.

After (Dec. 12th) published story by Reuters contradicted the Associated Press. Either the AP story was flat out wrong or anti-virus companies had more time to think about the ramifications of allowing the FBI's controversial "Magic Lantern" spying technology to go undetected in their security products.

Reuters said "Major anti-virus vendors this week said they would not voluntarily cooperate with the FBI and said their products would continue to be updated to detect and prevent viruses, regardless of their origin, unless there was a legal order otherwise."

"Doing so would anger customers and alienate non-U.S. customers and governments, they said, adding that there had been no requests by the FBI to ignore any viruses."

AMATEUR RADIO NEWS

Amateur Radio Trader, a twice a month advertising magazine has discontinued publication. Editor Barbara Patterson KF4MVV, said the publication was "...no longer a viable product for us" and that the firm was redirecting their resources to other areas. Their Web site at <www.amradiator.com> was also taken off line. Subscribers are being reimbursed for any outstanding issues.

Ducie Island in the South Pacific is the latest DXCC entity, the 335th. Uninhabited Ducie Island became eligible for DXCC credit effective November 16th as a result of a favorable vote to accept the Pitcairn Island Amateur Radio Association (PIARA) as an IARU member- society. Under DXCC rules, an entity hosted by an IARU society is considered a "political entity." Ducie Island, one of four islands in the Pitcairn group, is only about 2.5 square miles. High seas forced a cancellation of a DX-pedition that would have activated VP6DI on Ducie Island last month.

FCC Amateur Radio Enforcement

Glen A. Baxter K1MAN (Belgrade Lakes, ME) was formally warned by the FCC about his mailing of "...numerous so-called 'Standard Felony Complaint Affidavits' to various Amateur Radio licensees that you perceive to either cause interference to your Amateur Radio station K1MAN or do not relinquish to you the frequency on which they are

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operating."

FCC's Riley Hollingsworth reminded Baxter that all Amateur frequencies are shared and "You have no greater rights whatsoever to an Amateur Radio frequency than any other Amateur Radio operator."

Hollingsworth also noted that on January 5, 1994, U.S. Attorney Jay P. McCloskey directed Baxter not to send any more Standard Felony Complaint Affidavits to his office. "The interference you allege, even if intentional, is not a federal criminal offense over which our office has prosecutorial jurisdiction."

"It is against the law to write and mail this type of threatening communication, especially when it has no basis in fact. If you continue sending this type of letter, you may be subject to federal criminal charges for misrepresentation and for using the mails to make threats. You may also jeopardize your Amateur license," McCloskey wrote.

Hollingsworth advised Baxter "that any attempts to threaten or intimidate Amateur Radio licensees operating on the Amateur bands will reflect adversely upon your qualifications to remain a Commission licensee, and will be the subject of a license revocation or renewal hearing."

Baxter shot back an e-mail to Hollingsworth stating that his letter "illegally threatens me with a 'license revocation or renewal hearing' because I have (and fully intend to continue) filed sworn affidavits with the U.S. Attorney regarding alleged criminal violations of Sections 333 and 501 of the 1934 Communications Act."

Baxter said these affidavits are protected by the First Amendment right of free speech and the Fourth Amendment right to petition the government for a redress of grievances. He accused Hollingsworth of encouraging radio amateurs to 'talk over' his radio transmissions which is "...a criminal violation of Section 501 as well as criminal obstruction of justice." Baxter said he was taking legal steps to vigorously prosecute and remove Hollingsworth from FCC employment and from his status as a licensed attorney.

Baxter said his K1MAN station "is fully licensed to transmit information bulletins per a published schedule" and that the FCC is on record as recognizing the K1MAN Bulletin Service as being lawful.

Saying that Hollingsworth has "publicly lied to radio amateurs that you had something to do with putting my station, K1MAN, off the air in 1999," Baxter called Hollingsworth "...a public disgrace

to the Amateur Radio Service, to the Commission, to the legal profession, and to the United States of America." He said "We look forward to seeing you in court."

Baxter sent copies of his letter to the Commission, the U.S. Attorney (Bangor, Maine), to members of Congress, the American Bar Association, the ARRL and to the Amateur Radio media.

Michael E. Horn KB8GDF (Lenore, WV), **Kenneth E. Brown KF8HL** (Davin, WV) and **Carl E. Tussey KB4UCE** (S. Williamson, KY) have again been notified that their uncoordinated repeater on 145.390 MHz in Mingo County, West Virginia is causing interference to the KC8FKP Portsmouth Radio Club repeater on the same frequency.

A previous notification resulted in the FCC taking no action because there was a question as to whether the Portsmouth Radio Club repeater was coordinated.

Recent information, however, does indeed show KC8FKP to be properly coordinated.

Jack Rosevear KD6LSO (Novato, CA) has been contacted concerning interference to W6SON, a repeater operated by the Sonoma County Radio Amateurs. Rosevear is the trustee of the coordinated KD6LSO repeater which is apparently operated by the County of Sonoma.

The FCC says that it needs more information as to who is controlling and operating the KD6LSO repeater: "Since a county governmental entity cannot be an Amateur licensee...."

The FCC wants to know if Rosevear is employed by the County of Sonoma and, if so, his duties and responsibilities, any instructions given to him by the county, their role in the repeater's operation and for what the purposes the repeater is used.

Joseph D. Bushel, Jr. W2DWR (Live Oak, FL) has been directed to respond to a complaint that he is operating a repeater on 146.94 MHz after being denied coordination by the Florida Repeater Council. The repeater is causing interference to coordinated repeater K4EHM. Bushel is also to answer the allegation that he is "transmitting a digital voice recording on that frequency without identifying."

In still another repeater interference complaint, the FCC has notified **Dean K. Perrins N6HWI** (Fremont, CA) that his alleged uncoordinated 443.725 MHz repeater is causing interference to K6TVI, a coordinated repeater operating on the same frequency. Information indicates

that Perrins has been notified several times about the interference "...but that you have taken no steps to resolve the problem." Perrins to respond within 20 days.

William T. James K6RJR (Alto, TX) had his General Class license (which he had held for sixteen years) canceled when he failed to retake the General Class license exams as directed by the FCC under the supervision of the San Juan FCC office before May 5, 2001.

Kenneth P. Kelly WT2FB1 (Greensboro, NC) also had his license cancelled for failure to retake the Technician Class Amateur license exam.

Donald E. Anderson W4JYZ (Warren-Robbins, GA) has again been warned that the FCC has monitored him broadcasting "to no station in particular" about "switching power supplies" between 1 and 2 p.m. on Nov. 25th on 14.313 MHz. The FCC noted that Anderson had been warned at least twice before about interference and broadcasting on the 75 and 20 meter bands. The FCC said this was their final warning, "...one more instance will result in enforcement action against you." This action could include a fine, removal of voice privileges from his license or license revocation.

Thomas J. Banks KB4AN (Port St. Lucie, FL) was notified that he is to refrain from using the St. Lucie Repeater Association's AF4CN repeater as requested by the repeater trustee. "...failure to do so will jeopardize your Amateur license," FCC said. If he uses the repeater again, Banks could face license revocation, a fine or have the frequencies on which he may operate KB3AN restricted.

Thomas P. Neuhaus WB2CLN (Flushing, NY) was warned about the obscene and indecent language he was monitored as using on Dec. 6, 2001 on 3860 MHz. FCC also said Neuhaus was "...seriously misinformed about the basis and purpose of the allocation of spectrum for Amateur Radio."

Douglas W. Shock K0ZU (Colorado Springs, CO) also is to respond to the FCC within 20 days to a 10-meter Dec. 3rd "indecent and obscene language" complaint.

Salvatore Viglione W5SAL (Inverness, FL) has been directed by the FCC to respond to a complaint that he deliberately interfered with ongoing 3945 MHz communications on Dec. 8th and after moving to 3941, increased the bandwidth to continue the interference.

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NATIONWIDE PREPAID INTERNET ACCESS ON A CD

Newest development in Internet access is the *Prepaid Internet Access Account*. No memberships, no monthly bills, and no personal information (not even your name and address) is required. Not everyone thinks it is a good idea.

Similar to prepaid phone cards, prepaid Internet cards (actually a CD-ROM) allot a certain number of minutes of dial-up access. The software keeps track of the number of minutes used. Each account comes with a Web-based e-mail address but you can use your *Outlook* or *Eudora* e-mail account if you load in the settings.

Ideal for travelers, prepaid accounts include at least one toll-free access number and hundreds of local phone numbers. DSL and cable modem users can use a prepaid service as a dial-up backup in case their high-bandwidth service goes on the blink.

You simply insert the CD into your computer, type in your access code (included in the package) and start surfing. Hardware requirements are at least Windows 95 (or higher), a CD-ROM drive, a dial-up modem and at least 17 MB hard disk space. They all work with either Microsoft *Internet Explorer* or *Netscape Navigator* browsers. Unused prepaid account minutes usually expire in one year after they are implemented.

Slingshot Communications

...prepaid Internet access costs less than 2 cents a minute when used with local access numbers ...5 cents a minute when a toll-free number is accessed. Disc sells for \$9.99 for 600 local minutes (1.7¢ minute) or 200 toll free minutes (5¢). The CD can be purchased at Staples, Frys Electronics, CompUSA and Radio Shack. Check out: <www.slingshot.com>

Refill cards offer 5 percent more time for the same price and can be paid for by credit card online. Slingshot Communications, founded in 2000 by ex-Microsoft and Dell engineers and executives, is based in Seattle. You can even try Slingshot for free (for 10 minutes) by downloading a file from their website.

Sprint Prepaid Internet Access

...CD's are in the process of being launched at 5,000 7-Eleven convenience stores. They should be in the stores on Jan. 15th. Connection time will cost about 2¢ per minute. The Sprint \$9.99 CD offers (8 hours) or 480 local minutes for \$9.99 ...or 160 toll-free minutes (6.2¢.)

It gets cheaper if you buy longer play versions. A (20 hour) 1200 local minute version sells for \$19.99 (1.7¢) and (33+ hours) 2000 minutes goes for \$29.99 (1.5¢.) See: <www.sprintppi.com> for more information.

MaGlobe, Inc.

...began operations last fall. They are located on the Web at: <www.maglobe.com>. MaGlobe is the only pre-

paid Internet provider that offers both prepaid USA and international "Global Roaming" Internet access ...handy if you travel abroad. Fifteen USA hours (900 minutes) goes for \$14.99 (1.7¢ per minute, 6.7¢ if a toll free number is used.) Using the service overseas: 8.3¢ minute.

AT&T Prepaid Internet Service

...joined the pay-as-you-go net access crowd last month. Like Sprint, they offer eight hours of prepaid WorldNet dial-up Internet service for \$9.99 (2¢ minute), or 20 hours of service for \$19.99 (1.7¢) If you use AT&T's toll-free number, however, your total access time is reduced to as little as two hours for \$9.99 (4.2¢ minute). Information on AT&T Prepaid Internet Service is located at: <www.attconsumer.com/prepaidcard/prepaidinternet> Eckherd Drug and others are carrying it.

One of the problems with having a totally anonymous Internet account is the possibility that it may be used for undesirable or criminal purposes. Prepaid accounts have been criticized as being a haven for spammers. And the foreign-based author of the "Love Bug" virus used a prepaid service to launch the virus.

• The FCC released an order on Dec. 7th denying an Oct. 24, 2000 *Petition for Rulemaking* received from Alan Dixon N3HOE (Melborne, FL) and Robert K. Leef KB6DON (Mission Viejo, CA.) They wanted the Commission to establish a national calling channel in the 460-MHz Family Radio Service (FRS)

The FCC said the FRS was established in 1996 to be a very short range, two-way voice personal radio service which would permit small groups of persons to communicate with each other while they are out of speaking distance or sight ...such as at an amusement park.

Dixon and Leef asked that FRS Channel 1 (462.5625 MHz) to (1.) be declared a common calling or distress channel and (2.) require manufacturers to include specific technical features to facilitate FRS Channel 1 becoming a calling channel

"It appears the sole basis for requesting the calling channel is that FRS has never had such a channel," FCC said. Noting that "...current rules already provide that emergency communications have priority over ordinary communications," FCC called the concept "unnecessary" and inconsistent with the purpose of FRS

The FCC also noted that the proposed rule changes would impose a burden on manufacturer's because they would have to redesign their FRS radios so that a user's unit would default to FRS Channel 1. Furthermore, current rules already permit additional technical features - such as those requested - to be included in FRS radios.

The Commission concluded that the petitioner's requests were "...previously considered or are unnecessary ...and do not warrant further consideration at this time."

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NEW EXTRA CLASS QUESTION POOL RELEASED

On December 1st, the National Conference of Volunteer Examiner Coordinators' Question Pool Committee released a revised and expanded Amateur Extra class (Element 4) question pool into the public domain.

The new question pool must be used in all Amateur Extra Class examinations administered as of July 1, 2002. It replaces the Extra class question pool implemented on April 15, 2000 when the newly restructured Amateur Service took effect.

The new Element 4 pool expands the number of questions by more than 20 percent (804 questions) as opposed to 665 in the current Extra class pool. It contains more technical material as mandated in paragraph 42 of the restructuring *Report and Order*. More than half of the questions are on electronics, circuits, signals and emissions.

Amateur Extra Class Question Pool – 2000 vs 2002

Subelement Topics	2000	2002	Increase	Asked
1. FCC Rules	99	117	18.2%	7
2. Operating procedures	46	67	45.7%	4
3. Radio wave propagation	34	37	8.8%	3
4. Amateur radio practices	68	79	16.2%	5
5. Electrical principles	111	140	26.1%	9
6. Circuit components	72	88	22.2%	5
7. Practical circuits	95	109	14.7%	7
8. Signals and emissions	69	73	5.8%	5
9. Antennas and Feedlines	71	94	32.4%	5
Totals:	665	804	20.9%	50

The 50 questions in an Extra class examination are drawn from the question pool consistent with FCC rules and according to a formula that specifies the number of questions to be asked from each of nine topic areas. Applicants must correctly answer at least 37 questions (75%) to pass.

The new Element 4 question pool is available on the ARRL Web site at: <www.arrl.org/arrlvec/pools.html>. It is planned that the just-released Extra Class question pool will remain valid through June 30, 2005.

The Question Pool Committee now will turn its attention to developing an outline for the Technician class (Element 2) question pool. A draft Element 2 syllabus is scheduled for public release and comment next spring. The QPC invites suggestions for the Element 2 syllabus and question pool revision.

Questions and comments about the QPC's work can be directed to: Chairman Scotty Neustadter, W4WW, <W4WW@arrl.net>; Bart Jahnke W9JJ, <VEC@arrl.org>; Fred Maia W5YI <W5YI@w5yi.org> and John Johnston, W3BE, <Johnston.John1@worldnet.att.net>.

HAM EXAMS COME TO WHITE MOUNTAIN, ALASKA

White Mountain is a remote Native fishing village in far northwest Alaska, about 65 miles from Nome – the finish line of the well-known Iditarod 1,100 mile dog sled race. White Mountain, the next to last Iditarod checkpoint, is located on the banks of the Fish River which freezes over in October and thaws in May. Its mayor is Tom Gray KL0CQ, a reindeer farmer. Near the arctic circle, White Mountain is literally in the middle of nowhere!

The weather can be extremely cold. A temperature of minus 40 degrees and windchill down to minus 100 degrees is not uncommon in the winter. Its permanent inhabitants – about 180 people – are 90 percent Kawerak eskimos who depend on hunting and fishing for subsistence. They have two stores and, weather permitting, all freight has to be shipped in by plane or boat. There are no roads whatsoever in or out of White Mountain.

The White Mountain School serves about 70 students in preschool through 12th grade. The entire school system only has a few teachers. Eric Morris KL0HT sits on the school board.

The White Mountain School is the Bering Strait School District's only inland school. The others are all on the banks of the Bering Sea between the U.S. and Russia. The School District is undoubtedly the largest in size in the United States. Its 15 small schools cover an area of over 50,000 square miles; an area larger than the state of Minnesota. Over 96 percent of the less than 2,000 students in the district are eskimos.

On December 11th, W5YI-VEC examiners, Ramon Gandia AL7X, Michael Nurse KL0UJ, Scott Webber AL7RJ and Thomas Busch NL7H flew into White Mountain to administer the Technician license examination to 14 kids and 4 adults. All four VEs are from Nome. The trip was sponsored and paid for by the Seward Peninsula Amateur Radio Club. The flight alone cost about \$800.

The applicants had all been studying for the test during the last school semester as part of a course on search and rescue. All eighteen applicants passed; although one student had to be retested.

At the VEC Conference held on July 27th, Jim Wiley KL7CC from the Anchorage VEC organization informed the Conference of the special examination needs of individuals in remote parts of his state, Alaska.

He said many applicants are effectively denied an Amateur Radio license examination due to the inaccessibility of their locations and the high travel cost. Other areas have no amateurs (or too few) who can qualify as VEs to give exams. Jim asked that the VECs agree on a way to allow testing at remote exam sites and then approach the FCC for a rule waiver. One of his suggestions was to allow a trusted non-amateur at a remote exam location to positively identify the applicant and "proctor" the exam to ensure that no cheating took place.

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COMMENTS TO CLOSE ON RFID PROCEEDING

Comments are due Feb. 12th on the FCC's announced intention (in ET Docket 01-278) to permit unlicensed RF identification devices (RFID tags) to operate at 13.56 and 433 MHz using higher power..

The ARRL's position is that the FCC lacks authority to permit unlicensed devices with substantial interference potential and that such devices must be licensed. The ARRL is concerned about possible interference to the 20 meter ham band since the FCC has proposed to increase the maximum emission levels permitted by RFID devices operating at 13.56 MHz, as well as the maximum level of out-of-band emissions.

The FCC's proposals are in response to two *Petitions for Rulemaking* filed by the National Council for Information Technology Standardization Technical Committee B10 (NCITS B10) and SAVI Technology, Inc.

NCITS B10 wants to harmonize the RFID standards with those of Europe and Australia. It wanted the maximum field strength within the 13.56 MHz band to be increased from 10,000 μ V/m to 15,484 μ V/m measured at a distance of 30 meters ...an increase of 50 percent. It further proposed that emissions appearing from 7 kHz to 150 kHz above and below 13.56 MHz be limited to 334 μ V/m at a distance of 30 meters. Emissions appearing from 150 kHz to 450 kHz above and below 13.56 MHz would be limited to 106 μ V/m. The petitioner states that RFID systems operating with these limits are not expected to cause interference to licensed radio services. The FCC was basically in agreement.

The increased power would supposedly allow for improved object tracking, inventory management, access control, airline passenger safety, airline baggage tagging and handling, electronic retail transaction processing, and "smart labeling" of foods, medicines and chemicals.

The SAVI petition says that their firm has developed RFID tags that operate at 433 MHz because unlicensed operation is permitted worldwide at that frequency. SAVI wants an increase in the maximum field strength and duration of transmissions at 433 MHz or, as an alternative, new rules covering RFID tags operating in the 420-450 MHz range. SAVI says the higher power is needed to speed up the transfer of data from the identification tag. United Parcel Service (UPS) supports the SAVI proposal.

The FCC has sided with SAVI Technology and will create a new rules section that would allow RFID devices in the 425-435 MHz band at a maximum field strength of 11,000 microvolts per meter measured at a distance of 3 meters. The ARRL says the increased power could possibly result in interference to amateur radio operations.

Comments can be filed using the FCC's Electronic Comment Filing System (ECDS) located at: <www.fcc.gov/e-file/ecfs.html>. Enter Proceeding: 01-278.

"SEGWAY" PERSONAL TRANSPORT DEVICE

Remember the story we did some time ago about the so-called "It" machine? (*W5YI Report*, Feb. 1, 2001, Page 10.) A mysterious machine code-named "Ginger" made the national headlines everywhere on Jan. 12, 2001. "It" came to light when the Harvard Business School Press paid \$250,000 for the rights to a book about the invention.

Supposedly "Ginger" would be more significant than the invention of the personal computer or the Internet. After doing a patent search, we were among the first to uncover "It," a revolutionary two-wheeled electric scooter.

"Its" award-winning inventor, 50-year-old Dean Kamen is a true heavyweight when it comes to high-tech devices. Although he never finished college, he holds several doctorate degrees and was awarded the National Medal of Technology by President Clinton last year. A self-taught physicist and mechanical engineer, he has made millions of dollars creating medical devices including the first insulin pump and the first portable kidney dialysis machine.

His company, founded nearly 20 years ago, DEKA Research and Development (Manchester, NH) employs about 200 engineers. DEKA is an R&D company that develops and licenses inventions to others who produce and market them.

On Dec. 3rd – after a full year of speculation – Dean Kamen unveiled his invention on ABC's *Good Morning America* TV show. As we suspected, "It" is indeed a gyro-stabilized motorized scooter now officially named the "Segway Human Transporter." It took some ten years and more than \$100 million to develop.

The rider stands between two wheels on a platform, and grasps a T-shaped handlebar. You only have to "think" about which way you want to go and the machine reacts to subtle shifts in your balance and you go in that direction

Segway weighs about 75 pounds, has no brakes, no engine, no throttle, no gearshift, no steering wheel and can carry the average rider for a full day, nonstop, on only five cents' worth of electricity. Its range is about 15 miles on a single battery charge at a top speed of 15 miles per hour ...about four times walking speed.

Departing from earlier policy, Kamen has decided to form a separate company to build and sell the Segway. He already has \$90 million in startup funding from venture capitalists. The Segway is already being built (cost \$8,000) and will be sold to businesses to get around large warehouses. Police departments, the National Parks Service and the U.S. Postal Service also have placed orders.

A 77,000-sq.-ft. factory has been built in Manchester, N.H. and it is anticipated that it will have the capacity to produce 40,000 Segways within a year. A consumer model is expected to cost around \$3,000.